AMENDMENTS TO THE SPECIFICATION

On page 9 beginning at line 5, please insert the following after the description of Fig. 4:

Fig. 5 is a schematic illustration of another exemplary combustor system according to the present invention.

Please amend the paragraphs beginning on page 9, line 7 through page 12, line 11 as follows:

Referring now in greater detail to the drawings in which like numerals indicate like parts throughout the several views, Figs. 1-4 illustrate systems in which fly ash can be processed in order to reduce the concentration of residual carbon. As shown in Fig. 4, the present invention encompasses a system 100 including an array of combustion units ~~110, 111, 112~~ 151, 152, 153 in which fly ash can be processed, such as by combustion, to reduce the residual carbon of the ash. Although system 100 is shown with three combustors or process units ~~110, 111 and 112~~ 151, 152, 153, the array generally can include two or more units, such that greater or lesser numbers of combustors can be used in the system 100 of the present invention. The combustors ~~110, 111, and 112~~ 151, 152, and 153 of the array generally comprise batch loaded circulating fluid bed combustors (CFBC) that comprise dilute phase ash combustor (DPAC) units, as shown in Figs. 1-3 and described herein, positioned in spaced series along an ash transport line or path 160 for sequentially or intermittently receiving batches of ash.

Fig. 4 schematically illustrates the batch loaded circulating fluid bed combustor system 100 and method of operation thereof. An ash feed source (not shown), such as a collection tank or a feed directly from one or more coal combustors delivers a stream or flow of carbon-rich ash directed through feed line 160 to a diverter 152, which in turn directs batches of ash to the different process units ~~110, 111 and 112~~ 151, 152, and 153 of the array. The fly ash can be supplied in batches, semi-continously or substantially continuously through the feed line 160 to a downstream or first, central or common feed vessel 150 or system having one or more diverters 152 such as one or more valves communicating with the feed line 160 and operably controlled to divert the flow of ash directly from the feed line 160 to a flow line 161, 162 or 163 for one of the combustor units. Alternatively, the diverter 152 could include other solids flow controls that can accumulate or collect the ash feed into pre-determined batch quantities or charges for release as needed to the flow lines

161-163. For example, a series of compartments or hoppers can be sequentially filled and can have release gates for releasing their charges to the feed lines as needed.

The collected ash batches or charges are then directed by the diverter valve toward one of the combustion units. The flows or batches of fly ash are transported in sequence along separate flow or transport lines 161, 162, 163, generally in a dilute phase suspension although other conveying mechanisms also can be used, to the next available DPAC process unit ~~110, 111 and 112~~ 151, 152, and 153 of the array for processing. Alternatively, the system can lack a central feed vessel 150 and, instead, be designed to have the fly ash feed directed through one or more feed lines 160 directly from the ash source to the diverter 152 that diverts the flow of ash to each process unit ~~110, 111 and 112~~ 151, 152, and 153 of the array in sequence for a predetermined time period, thereby forming batches of fly ash to be processed in each unit. Still further, each combustor or process unit ~~110, 111 and 112~~ 151, 152, and 153, and/or the output of cleaned fly ash therefrom, can be actively monitored for controlling the diverter 152 to divert the flow or send an additional batch or flow of fly ash to a particular combustor when needed to ensure the substantially continuous processing of ash.

A first batch of fly ash can be diverted to the first combustion unit ~~110~~ 151, and then a second batch of fly ash can be diverted to the second combustion unit ~~111~~ 152, and a third batch diverted to a third combustion unit ~~112~~ 153. While the second and third batches are being processed in the second and third combustion units ~~111 and 112~~ 152 and 153, a fourth batch of fly ash can be diverted to the first combustion unit ~~110~~ 151 after the first batch has been processed and has been directed out of the unit ~~110~~ 151 and into the collection line 175. The time to completely process each batch within each unit can be factored into a system having an appropriate number of units so that the feed and diversion of fly ash to units within the array can be substantially continuous or semi-continuous.

Each DPAC unit ~~110, 111 or 112~~ 151, 152, and 153 further is monitored to determine the completion of a combustion cycle, which can be controlled based on a

pre-determined or known time interval that is required for processing each batch of ash to a desired level of carbon removal at a prescribed temperature, and/or can be controlled by active monitoring of the carbon content of the ash such as via sampling or other monitoring techniques. Additionally, based upon the flow rates/volume of ash being provided by the flow line 160 as compared to the processing rates/output volumes of the combustors, one or more of the combustors of the array can be placed in a standby mode, or possibly shut down, and the flow directed just to one or more of the combustors as needed.

As shown in Fig. 4, a similar clean ash collection/accumulation system generally will be utilized on the downstream side of the combustors ~~110, 111 and 112~~ 151, 152, and 153 to collect and transport the cleaned ash batches to a single collection or aggregation point for cooling and storage or transport to a further processing system. The clean ash collection system typically will include a central collection vessel or chamber 170 and an ash flow collection line 175 that receives the cleaned ash discharged from the process units ~~110, 111 and 112~~ 151, 152, and 153 and transfers the ash to the collection vessel 170. Charges of processed ash accumulate in the collection vessel 170 for subsequent discharge to other mechanisms or systems.

Please insert the following paragraph at page 12, line 12:

Fig. 5 provides a schematic illustration of another exemplary batch loaded circulating fluid bed combustor system 100 and method of operation thereof according to the present invention. For simplicity, like numerals are used to represent similar components of the system. In this example, the system includes a first combustion unit 151 and a second combustion unit 152. A first batch of fly ash Bl is diverted to the first combustion unit 151 (step 1). A second batch B2 of fly ash then is diverted to the second combustion unit 152 (step 2). After the first batch has been processed and has been directed out of the unit 151 and into the collection line 175 (step 3), a third batch of fly ash B3 can be diverted to the first combustion unit 151 (step 4). Then, after the second batch B2 has been processed (step 5), a fourth batch of fly ash B4 can be diverted to the second combustion unit 152 (step 6).

Please amend the paragraph beginning on page 25, line 3 through page 25, line 22 as follows:

In addition, the accumulated bed can be aerated with a source of preheated air from the motive air source 33, which can be injected into the bottom accumulated bed 105, as shown in the embodiment of Fig. [5]1, or such airflow can be injected directly into the injection line ~~106~~ 108 extending between the accumulator chamber 101 (Figs. 2 and 3) and the reactor chamber 21. Typically, this heated aeration air flow, indicated by arrows 115, is supplied through air injection lines 116, connected to the main air flow line or conduit leading to the reactor chamber and generally will include a series of manually or electronically actuated and controlled valves 117, which typically are controlled by the computer (not shown) of the combustor system. The aeration airflow further helps control the injection of the fly ash particles from the accumulated bed through the injection conduit and into the particulate bed, to additionally help prevent agglomeration of the particles as they enter the particulate bed. Pressure sensors 118 further generally are mounted within the accumulator chamber to monitor the head pressure of the accumulated bed. Additionally, an injection conduit control valve 119 generally is mounted along the injection conduit between the ash feed accumulator and reactor for further controlling the injection of ash from the accumulated bed into the particulate bed. The control valve 119 generally is an electronically operated valve controlled by the computer control of the combustor system for controlling the actual flow of particles through the injection line.